An Essay
on
The morbid appearances
observed after death
in the
Yellow-fever

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A. D. 1807.

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Introduction.

The disease of yellow fever has been so repeatedly investigated by Physicians in different parts of the world, that on this subject, if the Essay embraced it, I could offer nothing new or interesting. I shall confine myself exclusively to the morbid appearances observed after death in this disease. On this part of the subject Physicians have done much less than could have been desired. It is true they have given the morbid appearances, as observed on different occasions in several parts of the Continent; but their accounts have been so often contradictory, that it is very probable, we have sometimes been, for those of the yellow fever, the morbid appearances of a very different

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disease. But that this may be the more correctly judged of, I shall first take a brief view of the morbid appearances, as observed after death in the Yellow fever, by several Physicians in different parts of the world, & then give a short detail of twenty one dissections which were made during the prevalence of the Yellow-fever at Philadelphia in 1805. I have to regret circumstances compelled me, to examine so partially, & in some instances entirely to overlook many of the viscera in these dissections. The Contents of the Thorax, & the Brain, were sometimes examined; but seldom presented a diseased appearance. After having detailed the Dissections I shall give a short account of the Black-vomit-

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A brief view of the morbid appearances observed after death in Yellow-fever in different parts of the world.

Dr. Mitchell, of Virginia, is among the first who examined the bodies of those dead of the Yellow fever. He made his dissections in the years 1741 & 2; of which, in a letter to Governor Colden, he gives the following account. The liver, he says, was generally found turgid & plump, & its concave surface of a deep black colour, round the Gall-bladder seeming to be mortified or corrupted. The Gall-bladder contained a black ropy atrabilis which resembled bruised, or mortified blood, evacuated from the mortified parts of the liver surrounding. It would, however, stain a knife, or probe, thrust into it, which is a proof of its origin. The stomach

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that the cellular, & in one instance the fundus coat inflamed. He contained nothing but a small quantity of drink, take just before death and among the black clots resembling that in the sac bladder floating upon it, which was of a darker colour than in the sac bladder alone.

Upon inspecting the viscera in their same order, & there appeared, on the surface of the stomach, several carbuncles, of a sanguinous aspect and digest that it all he examined not only observed the same appearance but found the blood very florine & the bulk of the viscera much diminished from colour. He says he was very unwillingly to think when the disease is

not so quick in its first stadium, that about the termination of the fever there was a metastasis of the morbid matter to the mucosa.

Dr Gillary in his observations on the Indian bilious fever commonly called the yellow fever of the West India Islands says upon opening the bodies of those who die of this disease, we generally find the gall bladder, and biliary ducts, larger and filled with a fluid black bile, and the liver, and stomach, and adjoining parts, full of bile, blackish modified opinions and sometimes gangrenous in them as also several other parts of the body

In several bodies examined by

Dr

Dr Jackson, the morbid appearances were very different when the inoculation had been great and the reaction of the vascular system violent, in the early stages of the disease the liver was very frequently the inner surface of the stomach exhibited marks of derangement. In what is called the fever form of the yellow fever, the substance of the liver was frequently found distended with blood, and in some particular instances its membranes were inflamed. The inner surface of the stomach often exhibited large spots or circles of a bright red, resembling acute inflammation, in the centre of which was frequently seen a dark point like beginning gangrene. The

yellow was sometimes in the act of separating, and in some places actually separated from the nervous coat of the stomach. The appearance of the liver was various. In some instances its substance was greatly distended, and the biliary ducts preternaturally enlarged. In other instances it was uncommonly large, filled and distended as if suffocated with blood, and its membranes were ruptured. The urinary bladder was often much contracted, and on its internal surface were bloody spots. It seldom contained urine.

In the Medical Repository for Vol 2 p 149 we have an interesting account of the dissections made by Drs Turner and Rand during the prevailing Yellow fever at Boston in 1798. In their first dissection they found the

also was not very much of inflammation, but in the second and third it was much salivated. In every instance the Lungs were greatly inflamed, and the Lungs were considerably diseased. In one case eight or ten ounces of blood were effused in the cavity of the thorax. The brain in the second subject they examined was greatly distended with blood, and in two ounces of serum was effused between the dura and pia mater.

Dr. Hutchison in the first volume of the Med. Transactions of his work on the Malignant Pustulous fever p. 133. has published an account of several dissections made by himself and others. In one case, which came under his own notice, the Lungs were very considerably diseased. In the first case, which, he says, occasioned

all the rest the cow had shrunk to less than one half its natural size, was uncommonly flaccid, and of a colour nearly approaching a buff: the gall bladder was flaccid and greyish, and contained a small quantity of very dark coloured bile. The intestines were inflated, in flammation, and ulcerated, particularly the duodenum a little beyond the pylorus, & above was highly inflamed and ulcerated towards the bladder contained near three quarts of urine, and its coats were much thickened. From the account Mr Chisholm appears to have observed the stomach diseased in the first case.

The following observations
were made at the City Hospital
during the prevalence of the
yellow fever at Philadelphia
in
1805

Section 6.

A child six years of age was subjected to the first examination. In addition to the usual symptoms of yellow fever, this case was attended with considerable stupor. Upon opening the body the following appearances were observed. The stomach was inflamed in its lower depth, and contained a considerable quantity of black, bad smelling matter. The discharge in this case was most probably in every other respect the inflammation of the stomach, which began death, was probably very considerable. The liver, and in its appearance was natural. The bile was not in any considerable, but had not the usual consistence. The bowels together with the rectum were in their natural

An inter-susceptio existed in two portions of the small intestines which were also much inflamed

Dissection 2.

Upon opening the abdomen of a young man the stomach was found contracted and its internal coat of a candid brown colour & containing black vomit, which, in its odour, was not a little offensive. In cutting thro' the oesophagus, in order to remove the stomach, a mass was discovered. This appearance occurs not more uncommon. The internal coat of the stomach was considerably corrugated; in consequence of the great contraction of its muscular fibres. The patient however never complained of any thing like spasm, nor did any his indisposition arise from vomit.

Dissection 3.

In the third dissection the stomach was found much inflamed, and distended. In some parts of it the villous coat had the appearance of ulceration. In the lower orifice of the stomach, it formed a large granulation of the size of a walnut. The lower part of the small intestines was considerably inflamed, and contained a quantity of bile. The liver was yellowish in every other respect natural.

Dissection 4.

The liver was found to be diseased in an altogether different manner from the preceding. In the first stage, the disease was highly inflammatory, and the secreting tubes were replete with opaque [illegible]

[illegible] either was not injured be[illegible]. Upon inspection the stomach was found without any inflammation but having its coat in some degree thicken. The Intestines were loaded with worms and black matter. The Liver was of the natural size but had a yellow colour. While the Patient was complaining of any affection about the region of the Liver the bladder was found considerably diseased.

Dissection 5.

The Symptoms in this case were nothing uncommon. Before opening the thorax the contents were found natural the pericardium excepted which contained a small quantity of serum. The contents of the abdomen were in a very different state. The stomach was

cardia was considerably inflamed and contained a large quantity of black fluid matter. On the internal coat of the stomach there was a circumscribed evidently gangrenous. The jejunum & ileum were inflamed, and contained black matter. The liver, gall bladder, and bile were natural. The urinary bladder was considerably distended. The abdomen was observed to have undergone much more rapidly towards putrefaction than did the surrounding parts.

Division 6.

In this case although the medical appearances indicate great disease the patient during the indisposition of the latter was by no means violent. The patient was a man aged thirty and died a short time after his admission into the Hospital upon opening the abdomen the stomach

was found of the natural size, but was
extremely inflamed, in an spot large
as a crown and containing a large quantity
of coagulated matter. The fine
cells had much the appearance of ~~blood~~
coagulated blood, differing in some
size, perhaps in consequence of having
remained for some time in the stomach.
The small intestines were very considerably
inflamed and the jejunum and ileum con-
tained a large quantity of black matter.
The colon was more natural. The rectum
likely free from disease. The liver was
considerably enlarged, the lobes pale
yellow. The gall bladder was large, but
natural. The pancreas was also in a
healthy state. The coats of the urinary bladder
were thickened and the abdomen con-
tained a quantity of yellow serum. As the
case had been extremely intemperate in

the use of spirituous liquor, there is no doubt but that the morbid appearances, the liver and pancreas should be ignored to that unhappy practice

Dissection 7

7 was admitted into the Col. Hospital with the usual symptoms of the yellow fever, which on the fifth day of the disease terminated his existence during his convalescence he complained of suppression of urine, and was affected with considerable stupor. The brain was examined but contrary to expectation found not in the least diseased. The stomach was slightly inflamed, and contained some black vomit. The small intestines were inflamed and contained blood mixed. The liver was natural in its size &c.

[illegible] but of a slightly yellow colour. The urinary bladder was of the natural size, but considerably inflamed, and some hairs, of a [illegible]

Additional Sums

The appearances after death in this case were very similar to those the brain was healthy but similar, in colour, to the natural state. The stomach of both was inflamed and contained liquid in the [illegible] the other inflammation. The yellow colour excepted, was healthy. The vital blood was [illegible] and [illegible] of bile was discovered in the stomach. [illegible] the urinary bladder was so [illegible] to be [illegible] the cavity was very [illegible]

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Appearances

The appearance after death in the two dissections was very similar to the symptoms during the indisposition of the patients, was so dissimilar from others during the whole of his illness, it was impossible to induce him to take drink, nourishment or medicine of any kind. Two ignorant people were made to give them on when the Patient was in danger of being bitten. The symptoms were in some measure evidently hydrophobic, & had occurred, were submitted we should have examined the Trachea. Upon opening the bodies I found the Stomach considerable inflamed, and contained black vomit. The Intestines were nearly natural. Among the causes

The Liver was natural in the other. It concave surface was of a blue colour. The Brain, which was examined, was natural.

Dissected 12 13 and 14

In these three cases the stomach was almost the only organ affected. The inflammation in one case was great, but in the other two, less considerable. The Intestines, except in one case, where it had been pretty considerable, was nearly natural. In two of the cases the Liver was natural in all, in the other it was nearly the colour of the spleen. The gall bladder was not contracted, and the urinary bladder which in one case, contained a small quantity of yellow fluid.

Dissection 15.

This case terminated in death on the fourth day. Upon examination I found the stomach slightly inflamed and contained a large quantity of black flac[illegible] matter. The Intestines and their contents were natural. The Liver was natural and the Gall bladder considerably distended. The blood in the ventricles of the Heart was very fluid.

Dissection 16

Mr S. the subject of the 16th dissection, was a stout man, after being attacked with the [illegible] of the malignant fever was [illegible] into the city hospital. During the [illegible] in the hospital the [illegible] [illegible] but finally [illegible] [illegible] particularly the [illegible] after coming out of the warm bath. The [illegible] were inflamed and they contained [illegible] indicating a most malignant disease. The viscera upon examination

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

Lecture 18

The subject of this lecture [illegible] a short [illegible] take the [illegible] [illegible] The [illegible] of the [illegible]

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When the yellow fever first appeared in this country, and for a considerable time after, Physicians almost uniformly believed the black vomit a vitiated secretion of bile. This opinion prevailed with many till the year 1800 when Dr. Physick published a paper, in which he satisfactorily proved the black vomit was a discharge from the stomach, and not, as had been supposed, a secretion from the liver. About this same time Dr Saunderson of Portola advanced the same opinion. The correctness of the opinion these two gentlemen entertained will appear from the following arguments:

1. If the darkest coloured bile be spread thinly over a white surface, it loses the black colour it had in its accumulated state. If the black vomit be treated in the same way it will retain its black or

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2. The bile in the Gall-bladder has its common bitter taste; but the black vomit is, in general, nearly insipid - this fact has been ascertained by many persons & among others the late Dr. S. Cooper - Patients in the act of vomiting have often ascertained it.

3. The Black vomit differs materially from any fluid that can be produced by a mixture of bile with the fluids of the Stomach or Intestines -

4. I have seen more than thirty ounces of black vomit in the stomach of a subject whose Gall-bladder was small and contracted, and contained a very inconsiderable portion of viscid bile. In other instances the Gall-bladder has contained a transparent and colourless, and sometimes a pumulent coloured fluid, while the stomach contained black vomit of the nature above described

Finis.